increased by $10 in each of the 3 tiers. The patient population was limited to individuals that were continuously enrolled for both 1998 and 1999, in addition to having had a minimum of three prescription claims for a STATIN prior to the third quarter of 1998 and a minimum of three STATIN claims in 1999. Basic descriptive statistics such as means and standard deviations were used to describe the population. **RESULTS:** All four measures indicate that after the $10 dollar increase in prescription copayment STATIN compliance decreased. The greatest change in compliance was found in the consistence measure, in which patients on average were 83% (std. 15%) consistent in 1998 as compared to 73% (std. 23%) in 1999. Patients mean MPR dropped slightly from 0.81 (std. 0.17) in 1998 to 0.80 (std. 0.20) in 1999. The mean number of gaps, defined as greater than 15 days without a STATIN, increased by 0.19 gaps per person in 1999. Similar with the other three compliance measures the maximum gap in STATIN therapy increased from 26.13 days (std. 29.10) in 1998 to 31.81 days (std. 35.79) in 1999. **CONCLUSIONS:** Descriptively all four measures of medication taking behavior indicate that an increase in copayment results in a decrease in STATIN compliance.

HP4

CHALLENGES FOR EXAMINING THE ECONOMICS OF PHARMACOGENOMICS

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OBJECTIVES: To review the challenges for conducting economic evaluations of pharmacogenomic-based interventions (PGx) by: 1) identifying key factors that may influence cost-effectiveness; 2) describing how the "value" of PGx can be measured using willingness-to-pay approaches; and 3) discussing specific examples of the challenges faced by industry and regulators in valuing and implementing PGx. **METHODS:** Data was obtained from systematic searches of the Medline literature, interviews with key participants from industry and government, and our analyses conducted for biotech companies and the U.S. Food and Drug Administration. **RESULTS:** There are very few published cost-effectiveness analyses of PGx, and few analyses measuring willingness-to-pay for these new technologies. Much of the data needed to evaluate PGx are uncertain or complex to model, particularly 1) what populations should be tested; 2) concurrent development of test and drug combinations; 3) modeling the development of genomic risk profiles and test accuracy; 4) considering long-term and induced effects, and 5) evaluating how the value of PGx will be interpreted by patients, providers, insurers, and regulators. We discuss case studies of these challenges and provide examples of how they might be resolved. **CONCLUSIONS:** The expanded use of pharmacogenomics offers many potential clinical benefits but also many economic challenges. Academic researchers must work together with industry and government to address these challenges if the promises of pharmacogenomics are to be achieved.